

an implant body replica having at least one noncircular receiving surface which is substantially identical to said at least one noncircular receiving surface of said endosseous implant body.

36. (New) The kit of Claim 35, wherein said head has a top surface, a bore extending downwardly from said top surface adaptable to receive both an impression pick-up and material of an abutment body that is cast to said head at a point in time after receiving the impression pick-up.

REMARKS

Claims 1 and 20 have been amended to more particularly point out and distinctly claim the invention. Claim 19 has been amended to independent form and to incorporate all limitations of the claims from which it previously depended. Claim 21 has been amended to correct a discovered informality. Claim 27 has been amended to change its dependency.

The Examiner rejected Claims 1-4, 6, 8, 9-18, 20-24, and 26-28 as anticipated by Marlin, U.S. Patent No. 5,238,405. The Examiner reads the following claimed structure on Marlin's disclosure (referring to Figure 1A of the Marlin patent): an implant body 10 having a top surface, a receptacle 14 which has a threaded portion and at least one non-circular receiving surface, a first screw-threaded abutment 21 having a head and a threaded stem, and a second press-fit abutment base 20 having a head and a stem and at least one non-

circular locking surface 22 formed on the stem to mate with a non-circular receiving surface in the implant body. Applicant respectfully traverses this ground for rejection.

In Claim 1 as amended, applicant is claiming a first, screw-threaded abutment, and a second, press-fit abutment base used as an alternative to the first abutment. Marlin does not show alternative abutment bases of this kind. What the Examiner terms a "screw-threaded abutment 21" is an anchor screw. What the Examiner terms a "second press-fit abutment base 20" is a universal adapter used in Marlin's system in all instances. Nor does Marlin disclose a kit including an integrally constructed press-fit abutment base, as now claimed. The equivalent to applicant's integral abutment base is made up of Marlin's Universal Adapter 20, anchor screw 21, gingival collar 30, abutment post 42 and fixation screw 50. Applicant's press-fit abutment base is an integral construction having a head adaptable to receive a cast abutment body, and a stem integrally formed therewith having at least one non-circular locking surface.

Nor does Marlin show a system in which a press-fit abutment base can be press fit into the endosseous implant body and cemented into place, without the use of any anchor screw. Applicant's press-fit abutment base is cementable into the endosseous implant body, and this in turn implies tight machining tolerances not disclosed in the Marlin reference. See Applicant's specification, page 14, lines 2-6, for a discussion of the castability and cementability of the claimed press-fit abutment base.

None of the cited prior art references discloses or suggests a kit having a first, screw-threaded abutment as recited, and a second, press fit abutment base. Claims 2-14 are

patentable for their dependency upon allowable Claim 1. In addition, Claim 5 is patentable for its recitation of a trapezoidal cross section, as noted by the Examiner in his first action. Claim 6 recites a non-threaded section of the screw-threaded abutment base, not found in the Marlin reference. Claim 7 recites that this non-threaded section be tapered, also not found in the Marlin reference.

Claim 12 recites an impression pickup that is removed as a unit with the press-fit abutment base when these are removed from the patient's mouth in order to fabricate the prosthesis. This is not what happens in the Marlin system. In Marlin, and referring to Figure 17A thereof, an acrylic cap 570 remains in the impression. The transfer post head 540 and the gingival collar 530 remain in the mouth after the impression is lifted. These are then moved over and snapped into the acrylic cap. It is believed that this transfer system will suffer greatly in terms of accuracy in translating the necessary points of reference for accurate fabrication of the prosthesis. Claim 12 therefore patently defines over Marlin or any other combination of references disclosed. Claims 13 and 14 are additionally patentable for their dependency on Claim 12.

The Examiner has indicated that Claim 19 would be allowable if rewritten into independent form, and applicant has accordingly done this.

Claim 20 now recites a press fit, cementable and castable dental implant abutment base in which a head of the base is formed integrally with its stem. The head is adaptable to have cast thereto an abutment body, while the stem mates with the respective

non-circular receiving surface on an internal sidewall of an endosseous implant body.

Neither Marlin or any of the other references made of record show such an abutment base.

Claims 21-25 and 27-28 are additionally patentable for their dependency on allowable Claim 20. In addition, Claim 21 is patentable for its recitation of the machining tolerances necessary to provide a cementable base, rather than one which depends on screws for its affixation to the endosseous implant body. Claim 25 is additionally patentable for its recitation of a trapezoidal cross-section.

Applicant has added new Claims 34-36. Claim 34 is dependent on Claim 27 and ultimately on Claim 20. It is patentable for its dependency on an allowable claim and also for its recitation of an orifice that extends downwardly from the top surface of the head of the abutment base, and a sprue vent which is formed to communicate the orifice to the sidewall of the head. This sprue vent allows metal or other casting material to be cast into the orifice and permits a firmer connection of the cast material to the abutment base head. None of the references, alone or in combination, discloses such an abutment base.

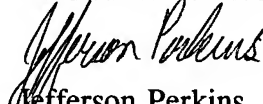
Independent Claim 35 recites a kit including an endosseous implant body as recited in Claim 1, an integral, press-fit castable and cementable abutment base as recited in Claim 1, and an implant body replica. No kit like this is disclosed or suggested in any of the cited references. Claim 36, dependent on independent Claim 35, further recites that the bore extending downwardly from the top surface of the press-fit abutment base head is adaptable to both receive an impression pickup and at a later point on the fabrication process, material

of an abutment body that is cast to the head. This novel and nonobvious feature is not shown in any combination of the references made of record.

For the foregoing reasons, the claims as amended each are patentable over the prior art. Applicant therefore respectfully requests an early notice of allowance on the claims as amended.

Respectfully submitted,

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